DREDGE 23
S.Johnston
Is Ridge

AMPLE ID	Mn CHEM	Pt & Au	REE	Si Chem	P.Sect.	35mm Pho	Archive	Paleo				
CD23-1	✓											
23-2	Bulk											
23-A1									Sample from Alick Davis			

Sample Description

Cruise I.D: F7-86-HW **Sample I.D: Sta:** 25-CD23-1 **Location:** S. Johnston Ridge

26x18x7

Size: ______ **Weight:** 4.8 kg

Mn crust thickness:

Total: min: 3.5 max: 6.5 ave: 5.0

Inner crust (v. massive)**:** min: 1.7 max: 3.2 ave: 2.3

Outer crust (dendritic)**:** min: 2.0 max: 3.5 ave: 2.8

Surface texture: smooth w/ voids; Botryoidal on one edge

Internal structure:

layered: X 2+

laminated: X inner half (at least some)

massive: X inner "half" & outer lesser

porous:

dendritic: X outer "half"

other:

Comments

~~Mineralogy (XRD)~~: Inner half of crust v. massive outer half slightly porous (some think orange layers) and dendritic. Inner v. massive part also laminated outer half has ~5 layers.

Associated alteration, phosphorite, or hydrothermal deposits:

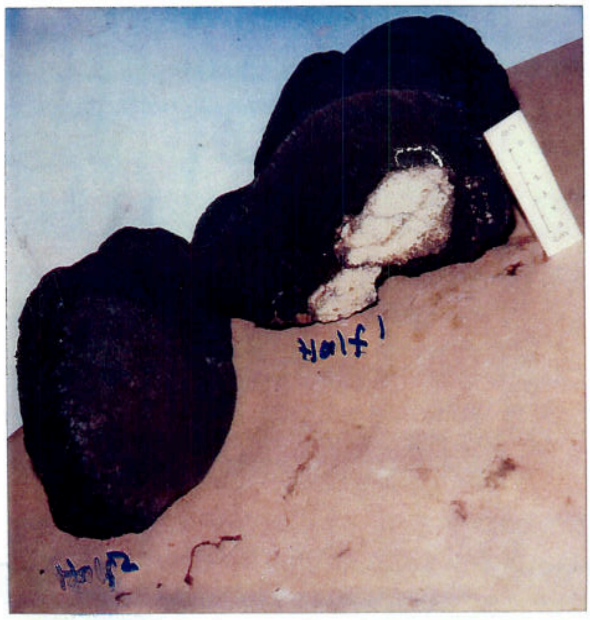
Inner half of crust v. massive. Outer half slightly porous (some think orange layers) and dendrites. Inner v. massive part also laminated outer half has ~ 5 layers

Substratum:

Rock type: Hyaloclastite

Description: yellowish brown consist of fine green lithic fragments, angular

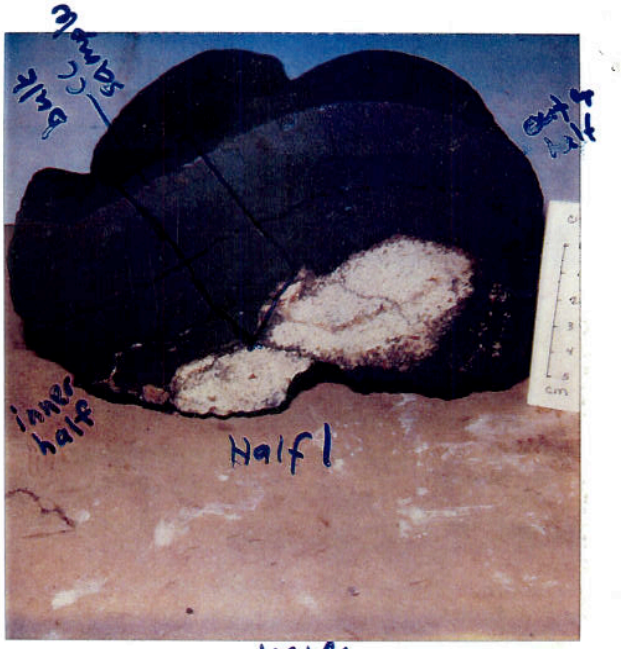
Mineralogy (XRD):



CD23-1
F7-86-HW

Analyses and subsamples:

analysis:	depth (mm) thickness	analyst:
CD23-1A bulk (0-50)	(45-52)	CL (45.1g); XRD



CD23-1
F7-86-HW

Half 1 slab taken from this rock for chem.

Sample Description

Cruise I.D: F7-86-HW Sample I.D: Sta: 25 CD 23-2 Location: S Johnston I. Ridge

22x22x10

Size: _____ Weight: 4 kg

Mn crust thickness:

Total: min: 10mm max: 35mm ave: 25mm

Inner crust: min: _____ max: _____ ave: _____

Outer crust: min: _____ max: _____ ave: _____

Surface texture: modified botryoidal — mushroom in places

Internal structure: _____

layered: _____
laminated: _____
massive: X
porous: _____
dendritic: _____
other: _____

Mineralogy (XRD): _____

Associated alteration, phosphorite, or hydrothermal deposits:

Substratum:

Rock type: Volcanic Breccia (typical substrate for this dredge)

Description: Altered volc. Rx. Frags. with phosphorite cement. Voids between clasts not totally in filled; lots of pole space. one clast along slabface is a Mn crust clast.

Altered volc. Rx. Frags. with phosphorite cement. Voids between clasts not totally in filled; lots of pole space. one clast along slabface is a MN crust clast.

Mineralogy (XRD):

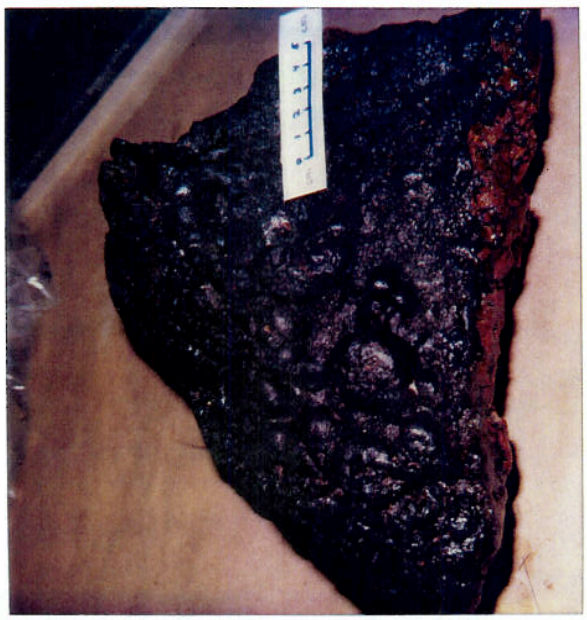
CD23-2

Analyses and subsamples:

analysis:	analyst:
CD23-2 Bulk	CC 27mm Thin

Alice has a basalt from this dredge w/ nice crust for chem-

has a basalt
this dredge w/
- This rock is CD23-A1.
Got from A1 G. Jim described not
to sample. Just describe



CD23-2

This rock from Alice

SAMPLE DESCRIPTION

Cruise Id: F7-86-HW Size: 17 X 13 X 10 Location: S. Johnston I. Ridge

Sample Id: CD23-A1 (This rock from Alice) Weight: 2 kg (approx as Alice removed some) Depth:

Mn Crust Description

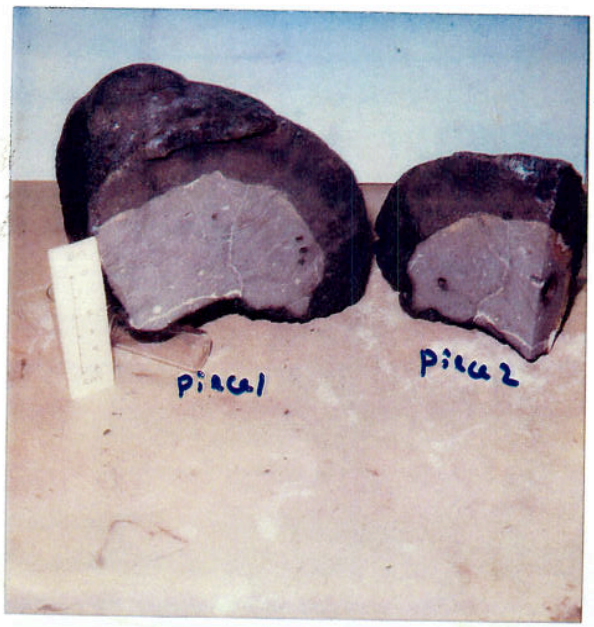
Surface Texture: mostly smooth on top to smoothed botryoidal. Granular on bottom part of one side. Granular + smoothness both.

Mn Crust Thickness: (cm)

Min: 1.5 Max: 2.8 Ave: 2.4 to pad side

Layers (Outer to Inner): NONE

	Min	Max	Ave	Texture
1.				
2.				
3.				
4.				
5.				
6.				



CD23-A1 This rock from Alice
F7-86-HW
Photo1

Comments and XRD Mineralogy:

one layer, massive w/ orange Fe-oxide disseminated throughout

Substrate Description

Rock Type: Basalt

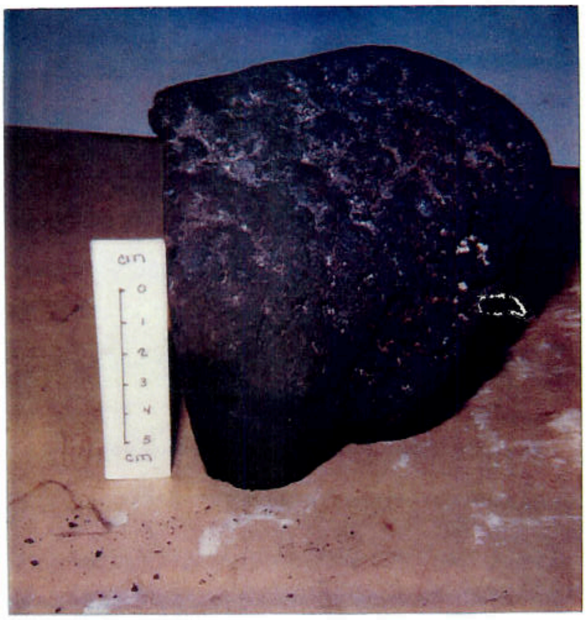
Description:

Gray basalt w/ white phosphate (?) filling fractures. vessicles (tiny needles) occasional large vesicles, some lined w/ Mn, some w/ same material that fills fractures (doesn't fizz).

ANALYSES

Subsample & Type	Analysis	Weight
Thin section of basalt only - Alice (we kept rock)		

Described By: Lisa Gan Subsampled By: Alice Davis



CD23-A1
F7-86-HW
photo 2

view of right side of piece 1 as pictured in photo 1